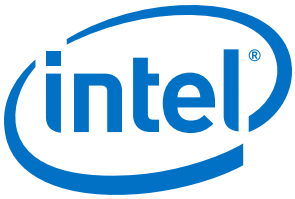


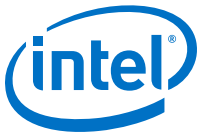
Intel® Omni-Path Fabric Unified Extensible Firmware Interface (UEFI)

Release Notes for 10.9.0.1

Rev. 1.0

January 2019

Doc. No.: K38340, Rev.: 1.0



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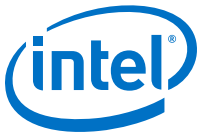

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1.0 Overview of the Release

This document provides a brief overview of the changes introduced into the Intel® Omni-Path Unified Extensible Firmware Interface (UEFI) by this release. Intel® Omni-Path UEFI is used for the hardware listed in Table 3 on page 7.

The information contained in this document is intended as supplemental information only; it should be used in conjunction with the documentation provided for each component.

These Release Notes list the features supported in this release, open issues, and issues that were resolved during release development.

1.1 Audience

The information provided in this document is intended for installers, software support engineers, service personnel, and system administrators.

1.2 Document Versions

The following table lists the end user document versions supported by this release.

Table 1. Supported Document Versions

Title	Doc. Number	Revision
Intel® Omni-Path Fabric Quick Start Guide	J57479	6.0
Intel® Omni-Path Fabric Setup Guide	J27600	10.0
Intel® Omni-Path Fabric Switches Hardware Installation Guide	H76456	7.0
Intel® Omni-Path Host Fabric Interface Installation Guide	H76466	5.0
Intel® Omni-Path Fabric Software Installation Guide	H76467	11.0
Intel® Omni-Path Fabric Switches GUI User Guide	H76457	10.0
Intel® Omni-Path Fabric Switches Command Line Interface Reference Guide	H76458	10.0
Intel® Omni-Path Fabric Suite FastFabric User Guide	H76469	11.0
Intel® Omni-Path Fabric Suite Fabric Manager User Guide	H76468	11.0
Intel® Omni-Path Fabric Suite Fabric Manager GUI User Guide	H76471	11.0
Intel® Omni-Path Fabric Host Software User Guide	H76470	11.0
Intel® Performance Scaled Messaging 2 (PSM2) Programmer's Guide	H76473	11.0
Intel® Omni-Path Fabric Performance Tuning User Guide	H93143	13.0
Intel® Omni-Path IP and LNet Router Design Guide (Old title: *Intel® Omni-Path IP and Storage Router Design Guide*)	H99668	8.0

continued...

Title	Doc. Number	Revision
Building Containers for Intel® Omni-Path Fabrics using Docker and Singularity* Application Note*	J57474	6.0
Intel® Omni-Path Management API Programmer's Guide	J68876	4.0
Configuring Non-Volatile Memory Express (NVMe*) over Fabrics on Intel® Omni-Path Architecture Application Note*	J78967	1.0
Intel® Omni-Path Fabric Software Release Notes	K38338	1.0
Intel® Omni-Path Fabric Manager GUI Release Notes	K38339	1.0
Intel® Omni-Path Fabric Switches Release Notes (includes managed and externally-managed switches)	K38337	1.0
Intel® Omni-Path Fabric Unified Extensible Firmware Interface (UEFI) Release Notes	K21145	1.0
Intel® Omni-Path Fabric Thermal Management Microchip (TMM) Release Notes	K21147	1.0
Intel® Omni-Path Fabric Firmware Tools Release Notes	K21148	1.0

1.3 Software License Agreement

This software is provided under license agreements and may contain third-party software under separate third-party licensing. Please refer to the license files provided with the software for specific details.

1.4 If You Need Help

Technical support for Intel® Omni-Path products is available 24 hours a day, 365 days a year. Please contact Intel Customer Support or visit http://www.intel.com/omnipath/support for additional detail.

1.5 Supported Features

- The list of supported hardware is in Table 3 on page 7.

1.6 Firmware Files

This release of hfi1-uefi-1.9.0.1-0.x86_64.rpm contains the firmware files listed in the table below.

Table 2. Firmware Files

Description	File Name	Version
HFI1 UEFI Option RPM	HfiPcieGen3_1.9.0.1.0.efi	1.9.0.1.0
UEFI UNDI	HfiPcieGen3Loader_1.9.0.1.0.rom	1.9.0.1.0

1.7 Intel Hardware

The following table lists the Intel hardware supported in this release. The table does not include OEM-specific hardware, such as custom adapters and switches.

Note: The Intel® PSM2 implementation has a limit of four (4) HFIs. PR# 136552 wontfix/135816 enhancemt

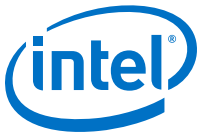


Table 3. Supported Hardware

Hardware	Description
Intel® Xeon® Processor E5-2600 v3 product family	Haswell CPU-based servers
Intel® Xeon® Processor E5-2600 v4 product family	Broadwell CPU-based servers
Intel® Xeon® Scalable Processors	Skylake CPU-based servers
Next Generation Intel® Xeon® Scalable Processors	Cascade Lake CPU-based servers
Intel® Xeon Phi™ x200 Product Family	Knights Landing CPU-based servers
Intel® Xeon Phi™ 72x5 Processor Family	Knights Mill CPU-based servers
Intel® Omni-Path Host Fabric Interface 100HFA016 (x16)	Single Port Host Fabric Interface (HFI)
Intel® Omni-Path Host Fabric Interface 100HFA018 (x8)	Single Port Host Fabric Interface (HFI)

1.8 Installation Requirements

1.8.1 Installation Instructions

For installation details, refer to the *Intel® Omni-Path Fabric Software Installation Guide*.

1.8.1.1 Download the Firmware

Download the firmware rpms from an Intel web page or other Intel secured location using the following procedures.

1. Using a web browser, go to https://downloadcenter.intel.com/search?keyword=Omni-Path.

   Notes: You can manually navigate to the software using the following steps:

   a. Using a web browser, type `downloadcenter.intel.com` in the address field and press **Enter**.

   b. In the "Search downloads" field, type `Omni-Path` and press **Enter**.

2. In the Description list, select the "Intel® Omni-Path Host Fabric Interface Platform Firmware" for the version you want to install.

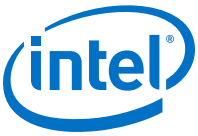
   Note: The latest version of each type of each download type is showing in the list. To show previous versions, select "Show more" at the bottom of the list.

3. In the "Available Downloads" list, select the files you need.
4. Review the Intel Software License Agreement.
5. Click "I accept the terms in the license agreement."
6. Save the download to your hard drive.

1.8.1.2 Installing and Upgrading rpms

This section provides information for installing or upgrading firmware rpms.

- To install the rpms, use `rpm -ivh <rpm name>`.
- To upgrade the rpms, use `rpm -Uvh <rpm name>`.



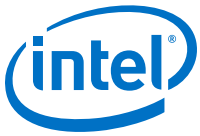
1.9 Product Constraints

UEFI 1.9.0.0 is required for Boot over Fabric to work properly with multicast MTU sizes above 4096.

1.10 Product Limitations

This release has the following product limitations:

- Enabling UEFI Optimized Boot on some platforms can prevent the HFI UEFI driver from loading during boot. To avoid this, do not enable UEFI Optimized Boot.



2.0 Issues

This section lists the resolved and open issues in the Intel® Omni-Path UEFI.

2.1 Resolved Issues

2.1.1 Issues Resolved in this Release

The following table lists issues that are resolved in this release.

Table 4. Issues Resolved in this Release

ID	Description	Resolved in Release
STL-48065	In some boot scenarios the BIOS can order the device paths such that it passes the device handle of a device implementing the EFI_NETWORK_INTERFACE_IDENTIFIER_PROTOCOL, which is not a child of the HFI device path. In these cases, the HFI UEFI driver can attempt to obtain access to internal structures based on the physical memory location of the controller name passed. This can result in an unexpected behavior in the BIOS. This is addressed by explicitly confirming that the controller handle passed by the BIOS matches the HFI device controller for child device handles.	10.9

2.2 Open Issues

The following table lists the open issues for this release.

Table 5. Open Issues

ID	Description	Workaround
134819	In KNL-F EFI shell, the command `ifconfig -l` does not correctly display the IP address after being assigned via DHCP.	Launch a newer version of the EFI shell from the embedded shell.
139613	The Subsystem Vendor and Subsystem Device ID in the PCI configuration space of Intel® Omni-Path discrete HFI cards may not indicate the correct OEM vendor and device. As a result, the `lspci` command may show incorrect Subsystem Vendor and Device ID information. This issue affects Intel server boards for Intel® Xeon® Processor v3 and v4 Product Family configured in Legacy OS boot mode.	Reconfigure the system from Legacy OS boot mode to UEFI boot mode.